

AGROCHEMICALS ON YOUR FARM: LABELS

Man-Made and Technological Threats



Agricultural chemicals (agrochemicals) are a common component found in rural communities and on farms. Products range from pesticides to herbicides to fertilizers or disinfectants. Many of these products can be hazardous if used incorrectly. Product labels are often overlooked but contain important information for the safe and appropriate use for agrochemical products. An overview of information found on agrochemical labels is discussed below.

Chemical Labels

- **Agrochemicals are regulated by the U.S. Environmental Protection Agency.**
 - It is a federal violation to use products inconsistent with their package labeling.
- **Always read packaging labels, as it will tell you**
 - Proper use of a product
 - Proper handling procedures
 - Safe storage instructions
 - First aid information
- **Read the label before purchasing a product.**
 - The chemical must be registered for your intended use.
 - You must make sure there are no restrictions that would prohibit its use.
- **Read the label before mixing and applying chemicals.**
 - Understand how to mix and safely apply the chemical.
 - Know the necessary first aid measures should an accident occur.
- **Read the label when storing chemicals.**
 - Know how to properly store chemicals to prevent breakdown, contamination and fire hazards.
 - Keep the storage area securely locked.
- **Read the label before disposing of unused chemicals and empty containers.**
 - Special measures may be needed to prevent environmental contamination and human health hazards.

Product Information

- **Brand (trade) name.**
 - Unique name used to advertise the product.; different names are used by different manufacturers even though their products contain the same active ingredient.
- **Product type.**
 - General term for what the product is used for or what it will control. Example: "Herbicide for the control of lawn weeds (dandelion, clover, thistle)."

- **Name and address of manufacturer.**
 - The law requires the maker or distributor of a product to put the company name and address on the label. Often the manufacturer will also list a telephone number and/or web address where users may seek technical advice.
- **EPA registration number.**
 - Indicates the product has been reviewed and registered by the Environmental Protection Agency.
- **EPA establishment number.**
 - Identifies the facility that formulated the product.
- **Ingredient statement.**
 - Provides the common and/or chemical name, amount of each active ingredient and the percentage of inert ingredients in the container.
- **Use classification or registered uses.**
 - Classification of the use (e.g., use pesticide versus a restricted use pesticide) or uses of the product that are approved by the EPA.
 - If the intended use is not on the label, the product should not be used!
- **Directions for use.**
 - Correct application of a product is accomplished by following the use instructions found on the label.
 - It is a violation of federal law to use products in any manner inconsistent with its labeling.
 - Labels may list the number of days which must pass between application and activities such as crop harvest, slaughter, or grazing livestock useage.
 - These intervals are set by EPA to allow time for the pesticide to breakdown in the environment and prevents illegal residues on food, feed, or animal products and possible poisoning of grazing animals.

Storage and Disposal

- **General instructions for the appropriate storage and disposal and its container.**
 - Generally includes temperature requirements (minimum and maximum).
 - Should include information on the disposal of containers or mixtures (e.g., triple-rinse procedures, recycling of punctured containers)
 - State and local laws vary considerably, so specific instructions usually are not included.

Warnings

Warning and caution statements tell you in what ways the product may be poisonous to humans and domestic animals.

- **Child hazard warning.**
 - KEEP OUT OF REACH OF CHILDREN
- **Signal words (toxicity categories).**
 - Printed in large letters on the front of the label
 - Indicates how acutely (rapidly) toxic the product is
 - See table on back for categories and description.
 - Danger, Warning, Caution.
- **Precautionary statements.**
 - Information about possible hazards and how to avoid them.
- **Physical and chemical hazards.**
 - Tells the type of hazard of product (corrosive, flammable, toxic, etc.).
 - Makes recommendations on how to avoid the hazard.
 - Example: "Protective equipment needed. For proper handling and use of the chemical. This may include masks, gloves, and respirators" or "Do not use or store near heat or open flame".
 - Hazard statements are listed in their order of immediacy and severity.
- **Specific Action Statements.**
 - These statements usually follow the route of entry statements and recommend the specific action needed to prevent poisoning accidents.
 - Examples: "DANGER! Do not breathe vapors or spray mist. Do not get on skin or clothing. Do not get in eyes." Or "CAUTION = Avoid contact with skin or clothing. Avoid breathing dusts, vapors or spray mists. Avoid getting in eyes."

Medical/Treatment Information

- **First aid or statement of practical treatment.**
 - Details on what to do in case of exposure.
 - This is not a substitute for medical advice.
 - Always call poison control or your healthcare provider.
- **All DANGER levels and some WARNING and CAUTION labels have a section on:**
 - First aid treatment
 - Poison signs or symptoms
 - Note to physician or antidote
 - An Emergency Assistance telephone number

- **ALWAYS call the National Poison Center Hotline at 1-800-222-1222**
 - For further medical instructions
 - Have the label available when calling the hotline.
 - Take the product label with you to the hospital; it will have specific instructions and information the healthcare provider will need,
 - Examples: "If swallowed: DO NOT induce vomiting" or "If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes."

Agrochemical Safety

- **All chemicals should be stored and handled in a safe manner. For more information, see the "Agrochemicals on Your Farm: Safety" factsheet in this booklet.**
- **Material Safety Data Sheets (MSDS)**
 - All chemical products have a MSDS sheet which contains the following information:
 - Name & trade name of the substance
 - Hazardous ingredient(s) it contains
 - Physical characteristics of the chemical
 - Detailed toxicity information
 - Protective equipment to be used
 - What to do in event of a leak of spill
 - Precautions needed for emergency personnel
 - Any other precautions to be followed

Environmental Hazards

Chemical residues can contaminate water supplies, accumulate to dangerous levels in the environment or harm birds, fish or wildlife. This section of the label explains potential hazards and the precautions needed to prevent impact to the environment. Examples include "This product is highly toxic to fish and aquatic invertebrates." Or "Do not apply where runoff is likely to occur."

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AGROCHEMICAL LABEL HAZARD WARNINGS

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Signal Words

Signal words indicate the relative acute toxicity of the product to humans and animals.

Signal word	Category	Oral lethal dose	Examples
DANGER, POISON (skull and crossbones)	I. Highly toxic	A few drops to a teaspoonful	DANGER! Fatal if swallowed. DANGER! Poisonous if inhaled. DANGER! Extremely hazardous by skin contact.
WARNING	II. Moderately toxic	Over a teaspoonful to one ounce	WARNING! Harmful or fatal if swallowed. WARNING! Harmful or fatal if absorbed through the skin. WARNING! Causes skin and eye irritation.
CAUTION	III. Slightly toxic	Over one ounce to one pint	CAUTION! Harmful if swallowed. CAUTION! May be harmful if absorbed through the skin. CAUTION! May be harmful if inhaled
CAUTION	IV. Relatively non-toxic	Over one pint to one pound	CAUTION! Harmful if swallowed. CAUTION! May be harmful if absorbed through the skin. CAUTION! May be harmful if inhaled

U.S. National Fire Protection Association (NFPA) Chemical Hazard Labeling System

The NFPA Chemical Hazard Labeling System provides a visual rating system to quickly summarize the hazards associated with various chemical products. It is not intended as a substitute for reading the label or consulting a MSDS sheet.



Source: www.nfpa.org